SOIL conservation

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RC&D - Part 1

SOIL conservation

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RC&D's are home-grown products

The response to our request for articles from local non-government leaders of RC&D projects was so great that rather than try to fit all the articles in one issue of SOIL CONSERVATION we opted for two RC&D issues. November is "RC&D, Part I." Look for Part II in December.

This month's articles span the country from Connecticut to Nevada, and each article makes evident that RC&D projects are a real force in community development.

Prepared in the Division of Information, Soil Conservation Service, U.S. Department of Agriculture, Washington, D.C. 20205.

CLIFFORD M. HARDIN, Secretary of Agriculture
KENNETH E. GRANT, Administrator, Soil Conservation Service
PHILLIP A. CHAVEZ, Editor
GEORGIE A. KELLER, Production Editor

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RC&D—cure for an ailing lake

by Al Rose

The author: Al Rose of Camden, Arkansas, retired in 1968 as a newspaper editor but continues to write a weekly column that he started half a century ago. He serves the county hospital as public relations director and was appointed delegate to the 1971 White House Conference on Aging by President Richard M. Nixon.

(Mr. Rose died of a heart attack on October 31, 1971, after we had gone to press.—Ed.)

The area: The Southwest Arkansas Resource Conservation and Development Project area includes 12 counties: Calhoun, Columbia, Dallas, Hempstead, Howard, Lafayette, Little River, Miller, Ouachita, Nevada, Sevier, and Union. The topography ranges from forested coastal plains in the south to the Ouachita Mountains in the north.

While the really affluent people of southwestern Arkansas have access to private lakes and country clubs, most of us must look to public facilities for our outdoor recreational needs. But public facilities are too few here at home, and limited leisure time or restricted income keeps many Ouachita County residents from enjoying faraway places. That's why I am excited about our Bragg Lake Recreation Park—it is in spittin' distance of a third of our people.

Bragg Lake dates back to the mid-thirties when the T. J. Gaughan family donated 280 acres of land to the county for recreational use. County labor and road equipment were used to build the dam, and for a few years the lake was quite an attraction. It was used heavily by local people and brought many visitors from northern Louisiana and eastern Texas before larger lakes were built in those areas.

Facilities at the lake are all now badly deteriorated. And the lake itself is infested with lotus and other aquatic weeds that limit its value for both boating and fishing.

County officials saw the need for a local recreational development, but with a limited tax base, they simply couldn't bear the cost alone. Then last year Ouachita County was added to the Southwest Arkansas Resource Conservation and Development Project area, and we saw a ray of hope. When project sponsors approved our plan for a recreational park, thus insuring the needed cost-sharing, we lost no time in moving ahead.

The park area, all owned by the county, includes 55 acres of woodland and a 225-acre lake. Facilities planned include a paved access road; a footbridge over the spillway; picnic tables and grills; campsites; boat-launching ramps and docks; water supply and electrical power systems; and sanitary facilities.

The total cost of the project, including erosion-control work, is $106,000. This figure includes the value of the county owned land—$56,000. RC&D funds for the project amount to $23,780.

Most of the 5,420-acre watershed in which Bragg Lake is located is rolling hill country and is expected to remain in mixed pine and hardwood forest. The Ouachita Soil Conservation District will assist landowners in carrying out a management program to fulfill timber, wildlife, and recreational needs. The Arkansas Forestry Commission is making a major contribution through its fire prevention program, distribution of tree planting stock, and pest control assistance to protect landowners in the watershed. Managing fish populations and stocking will be handled by the State Game and Fish Commission; the county will take care of maintenance through use fees yet to be established.

Located only 8 miles from Camden, home of more than half of the county's 31,000 residents, the park will be used heavily by local people and is expected to attract some 12,000 additional visitors annually. During the period of peak use between mid-April and Labor Day, we expect to have as many as 300 visitors per day.

No doubt about it, Bragg Lake Recreational Park will be a major asset to our area and a real bonanza for the average fellow. It just goes to show what can be done when people work together and don't worry about who gets the credit. ♦

Hohokam—hope for the desert

by Robert L. Tyson, Jr.

The author: Robert L. Tyson, Jr., owns and operates a farm in the Laveen area, southwest of Phoenix. He is chairman of the Hohokam Resource Conservation and Development Project Steering Committee, a supervisor of the Agua Fria-New River Soil Conservation District, treasurer of the State Association of Soil Conservation Districts, and a member of the Arizona Council of Resource Conservation and Development Projects.

The area: The Hohokam Resource Conservation and Development Project area includes all of Maricopa County in central Arizona and part of Pinal County to the southeast. Maricopa County covers more than 6 million acres; its population is 963,132, more than half of which is in Phoenix, the state capital.

(Hohokam is not yet a full-fledged RC&D project. Its application for planning assistance from the U.S. Department of Agriculture is pending.—Ed.)

If people really want something, they aren't easily discouraged from getting it by a handicap or an obstacle.

This is the way it has been with our Hohokam Resource Conservation and Development Project in Arizona. It has been operating for 3 years now without federal funding. That's a mighty large chunk of money to do without, but sponsors decided to do as much as possible with local and state funds.

So far, we have managed to complete six project measures. We have 24 in progress, some in planning, and others temporarily tabled.

Our RC&D project came about after six soil conservation districts within Maricopa County formed an association to solve common problems. At that time, the districts didn't have any other way of collectively solving widespread problems like flooding and lack of recreation.

The Maricopa Association of Soil Conservation Districts recognized RC&D as a valuable tool and shortly formed a liaison with cities, towns, organizations, and districts in the area to organize the Hohokam RC&D Project.

As of now, the project includes the Maricopa Association, two cities, three towns, three irrigation districts, a development association, and two Indian communities.

We are running the gamut of project measures—from saving an old ironwood tree to building small watershed flood-control structures. Most project measures concern flood protection, community development, public road and utility improvement, employment, environmental cleanup, and scenic, historic, and recreational development.

We have established a liaison with our state legislators and are pressing for needed flood-plain zoning regulations. We are presently trying to get legislation that will permit us to form flood-control subdistricts based on watershed boundaries.

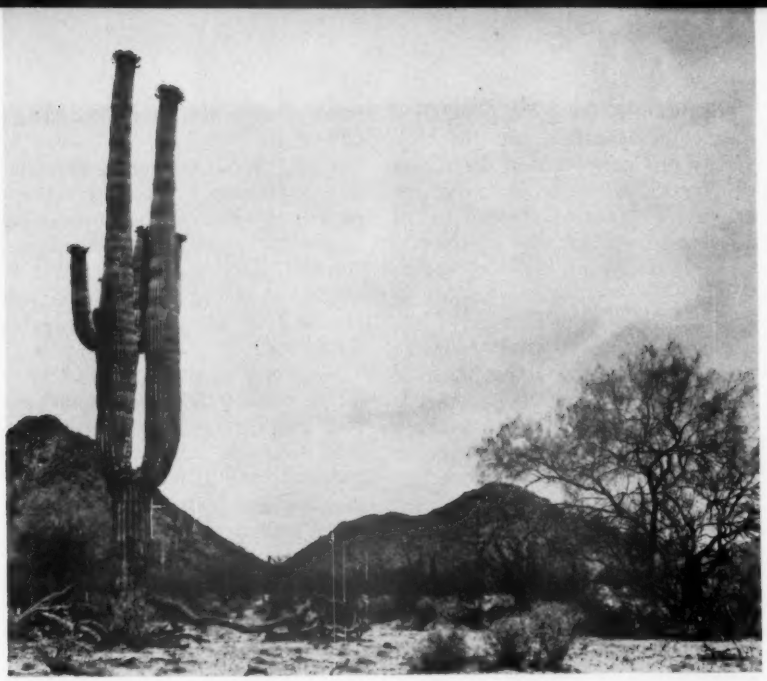
Some project measures are moving along, despite lack of federal funds, mainly because of much outside assistance. One community development project measure completed by the Arizona Public Service brought electricity to the Tonto Basin rural area. The Arizona Public Service spent more than $185,000 to provide electrical power to about 185 customers.

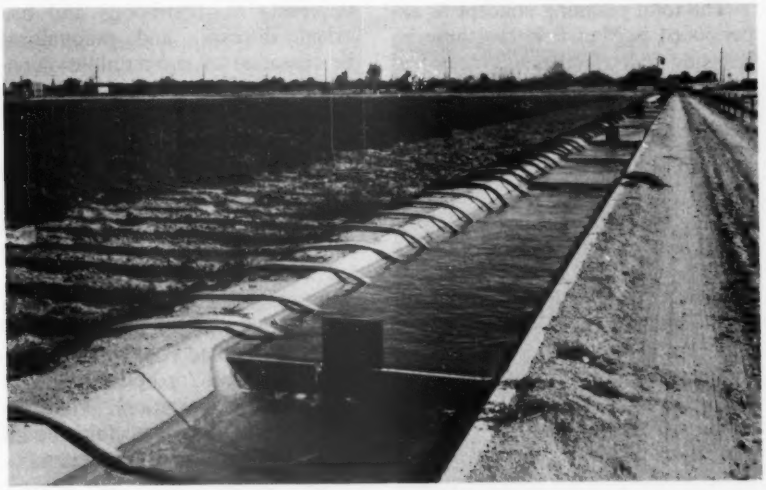
Another community development project involved much more outside assistance, simply because one group could not handle all the problems. We requested assistance for Allenville, a small black community southwest of Phoenix, which has substandard housing, poor quality and low-volume domestic water supply, poor public roads, poor recreation areas, and no day-care center for working mothers.

Allenville's main street is now paved, a day-care center built and staffed, and a new domestic water well drilled. Several new homes are under construction.

Our countywide projects, such as recreation for Maricopa County, also demand a great deal of agency cooperation. Presently, the U.S. Army Corps of Engineers, the Arizona Game and Fish Department, the State Parks Department, the Bureau of Indian Affairs, the Gila Bend Soil Conservation District, and the Papago Bend Development Commission are working on a project measure to turn a borrow area into a lake. The borrow area is filled with seepage from a nearby dam. The Corps recently tested a nearby well that will be used to maintain the desired level in the lake. If the well water is suitable for fish and wildlife, plans are to install camping and picnicking facilities.

Some project measures progress piecemeal. They are worked on whenever funds are available. For example, there was a real need for a good farm-to-market road from Hyder to Sentinel where it could connect with U.S. Highway 80. The Hyder area is highly developed agriculturally, but getting produce to market was difficult because of a narrow, winding desert road. The





(Top) The Hohokam RC&D Project Steering Committee wants more desert areas opened to the public for recreation use.
(Middle) Irrigation efficiency and water management are priority measures of the Hohokam Project.
(Bottom) When the Agua Fria-New River flood-control measures are installed, residential areas in and around Phoenix will be safe from floods.

Maricopa County Highway Department agreed to help by straightening as much as possible about 18 miles of the road and then paving it. Now farmers find it easier to get their produce to market.

Other project measures, watershed projects under the federal Public Law 566 program, are pushed ahead as far as possible without federal funding. Then they come to a standstill. The town of Wickenburg, for example, paid about $50,000 for technical help in planning a Public Law 566 project, sponsored by the Hohokam RC&D Project. The planning is almost completed, and we will soon have to rely on federal funds to finish the work. Thus, despite our progress, there is still need for federal funding.

Until we bridge this obstacle of funding, we'll be like the tortoise racing against the hare. It may take us longer to get where we want to go, but, eventually, we'll reach our goal. ♦

Total planning in Connecticut

by Dorothy C. Goodwin

The author (shown above with a student on University of Connecticut campus): Dorothy C. Goodwin, a native of Connecticut, is assistant provost and director of institutional research at the University of Connecticut in Storrs. She holds the title of associate professor of economics at the university. Miss Goodwin serves as secretary of the Eastern Connecticut Resource Conservation and Development Project Committee and is a member of the Mansfield Community Development Action Plan Coordinating Agency.

The area: The Eastern Connecticut RC&D Project covers three state planning regions: Northeastern Connecticut, Southeastern Connecticut, and the Windham region. The project is sponsored by Connecticut's Department of Environmental Protection.

Until recently, the great population magnet of Mansfield was the University of Connecticut in the village of Storrs. A major industry, the university generated problems of housing, sewerage, and transportation, necessitating services never previously needed so badly in Mansfield.

Needs for these public services converged suddenly. Expenditure of time and money to meet these needs might well have obscured an even more crucial pressure: expanding urban sprawl from New York and Boston. To meet demands of present and future, it became apparent that some sort of total planning was needed. This is being accomplished by public action increasingly through the Eastern Connecticut Resource Conservation and Development Project.

The total planning concept as experienced in Mansfield has three interesting facets: environmental corridors, interaction between RC&D and the Community Development Action Program (CDAP), and creation of an environmental impact team.

The environmental corridor, useful in a large area undergoing transition, is simply a belt of land sharing characteristics that make uniform policy on its use desirable. This could be a "streambelt," a stream with its adjoining marshes and wetlands; a highway, with its dynamic relationship to land; or transmission corridors, open swaths cut through the woods around powerlines. The environmental corridor concept was developed by RC&D as a tool for land-use planning on a regional scale. It has been extremely valuable to us.

The second thrust of RC&D work in Mansfield has been technical assistance to CDAP, whose programs are organized and funded by the state and the federal government after application by a town has been approved. CDAP coordinating agencies are composed of local townspeople. I served on the Education, Housing, and Economic Development Committees for Mansfield's CDAP.

CDAP is not a planning and zoning commission. It takes a broad approach to planning, incorporating education, social services, town government, housing, utilities, transportation, and economic development into a land-use plan designed for the future.

Technical assistance from RC&D in formulating Mansfield's land-use plan was, frankly, beyond valuation. William Lucas, the RC&D project coordinator, was also chairman of the land-use committee of CDAP, a circumstance that was most useful.

Because of Eastern Connecticut RC&D's constant association with CDAP, the RC&D became aware of total planning values. The RC&D took into account communications, preserving neighborhoods and historical districts, and maintaining the character of communities—considerations not always included in planning that simply looks at spatial relations.

The most important ways RC&D and CDAP have come together have been in the interdependence of housing, utilities (especially sewers), and transportation, including roads. Mansfield's land-use plan was a beautiful example of uniting RC&D information about land with requirements of *people* for housing, sewerage, and transportation. What the CDAP-RC&D process did was to put *people* on a land-use map.

The Mansfield plan was formulated over a 2-year period. Recommendations were organized by subject and year of suggested implementation. Our plan deals with recommendations such as a new library, a new town hall, and new sewers. But these particulars are founded on a total view of conditions in Mansfield. After adoption by the coordinating agency, the plan was adopted by town meeting with one small change.

The plan now goes to various town boards and commissions for implementation. Future develop-

charged for this service.

Developers have responded enthusiastically. They know they can enhance their reputations by producing a good development for the same amount of money.

The environmental corridor concept, the coordinated town planning activity, and the environmental impact team are responses to mounting growth pressures in eastern Connecticut. Some people here don't want this kind of growth. They want this area to remain a beautiful woodland. But people are here, and there must be houses for them.

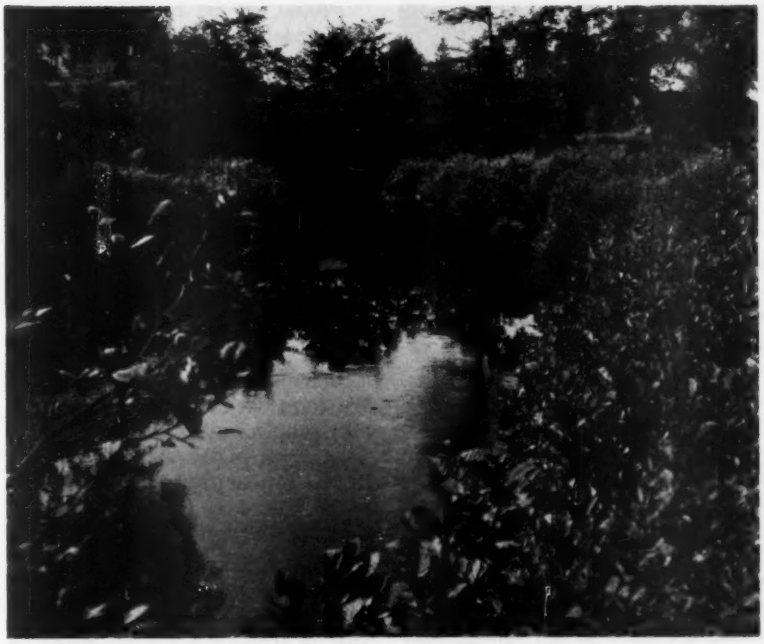
Town zoning commissions alone cannot plan for the future. We need total and comprehensive planning. For the first time in history, we are recognizing that it's all one package. ♦

ment of this community will be guided by principles of the plan and technical advice of the RC&D.

The RC&D project will be a major input in the laying out of Interstate-84, the new highway being planned through Mansfield. This highway must do minimum damage to streambelts, houses, and farms.

In connection with total planning, I would like to mention the role of the environmental impact team, whose services I feel are the most important contribution of RC&D. The idea for such a team came about in response to a serious situation in the southern part of the project area, where some housing developments could have turned out better without additional spending. Buildings could have been better sited, access handled better, layout on the sites arranged better—all this without costing the developer more money.

To meet the problem of inefficient developments, RC&D makes available a team of advisers to developers who request help. This team consists of site planners, sanitarians, geologists, civil engineers, landscape architects, soil scientists, biologists, and others. No fee is



(Top) Urban development near New London, Conn., is moving across previously untouched forests and fields.
(Above) Areas of natural beauty are not incompatible with urban development, if the development is planned with farsightedness.

A people's project

by Chuck Ehm

The author: Chuck Ehm is a bank vice president in Creston, Iowa, and serves as chairman of the Southern Iowa Resource Conservation and Development Project. He is a former extension director of Union County.

The area: The Southern Iowa RC&D Project spans a predominantly rural area of seven counties in southwestern Iowa—Ringgold, Adams, Taylor, Adair, Union, Decatur, and Clarke. Some of the corn for which Iowa is so well known is grown there, but much of the rolling, hilly land is better suited to pasture.

Curiosity. That seems to be what has kept our Southern Iowa Resource Conservation and Development Project going.

It's been 3 years since we first began talking about RC&D, and even now many of us wonder just how far we can go.

The Southern Iowa Project was approved only recently for federal funds, so most of our programs have been financed locally. Nevertheless, we've developed an understanding of what RC&D is. We've got spirit—a kind of spirit that's a little surprising.

Even though there aren't many tangible results yet from our RC&D project, people are interested; many come to our meetings. And we've broken down county barriers. A county no longer hesitates in giving other counties helpful tips on community improvement.

People, in the beginning, feared that federal funds would not be split equally among the counties and that Creston, the largest town in the area, would benefit most from the project.

All that is changing. We realize that we have to depend on one another. The general feeling coming across is that when one town is improved the entire area is improved.

We're doing everything we can to get a balanced program. Committees include farmers, businessmen, and professional specialists. We meet in Clearfield, a town of 500 people, rather than in a large town to help convince people that RC&D is honestly areawide. It's got to be this way if we're going to stabilize the population in this area.

Look at Arispe. Ten to 15 years ago, it had two gas stations, three auto repair shops, a car dealer, a grocery store, a hardware store, an implement dealer, a high school, a tavern, and some other facilities. Today, it has only one gas station, one auto repair shop, a grocery store, a tavern, and an elementary school. This kind of thing is happening all over the area, and we hope RC&D is a way of stopping it.

We have other problems too. Tests show that 75 percent of the wells in one of our counties are contaminated and that the water is unsafe for drinking. This could be true in the other counties. We know we've got to have good water, and many of our towns are including municipal water supply in RC&D proposals. Afton, Creston, and Corning are planning to get municipal water from watershed reservoirs that are being built. And Greenfield and Fontanelle plan to share a water-supply source.

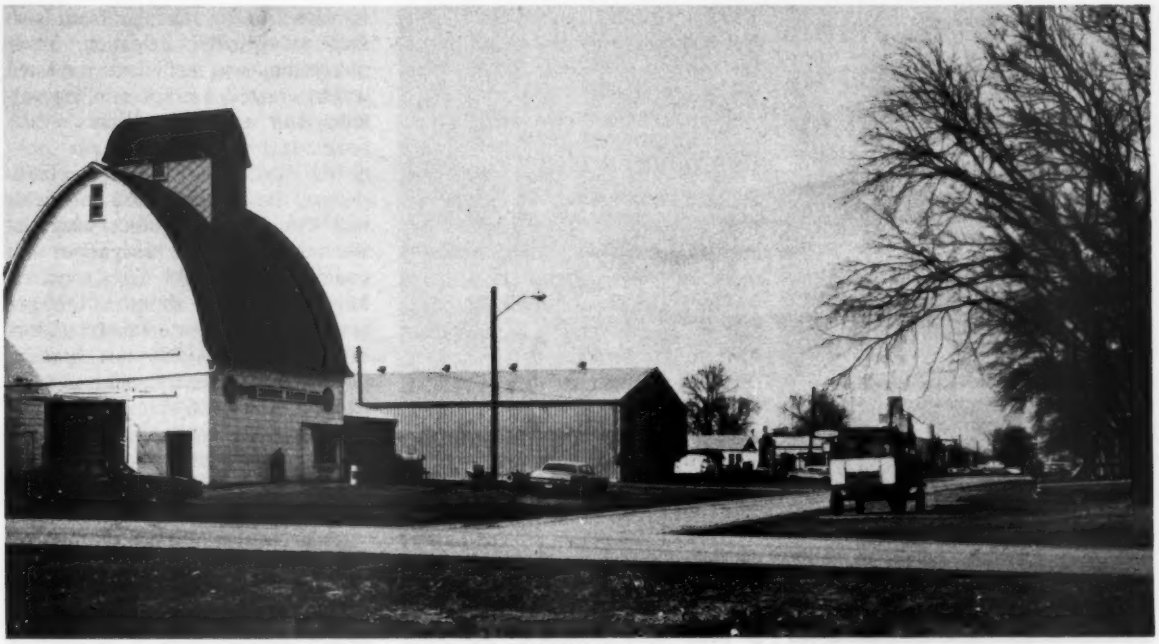
We know we have resources in the area. Our seven counties are producing everything from aluminum castings for jet nose cones to garters and women's undergarments. One of our best opportunities is to develop cow-calf herds for beef production. Converting steep land to lush pastures is part of our agricultural improvement program, which Ted Howe, a Greenfield banker, calls the backbone of our RC&D project. The agricultural improvement committee figures that reaching half the pasture-improvement goals could boost area income by $3 million. Ted points out that good land treatment means a better water supply for towns.

At first, project proposals were slow coming in. People didn't understand RC&D. But after newspapers and radio stations explained it, we were flooded with ideas.

Towns wanted sewer systems and sanitary landfills for solid waste. Each county came up with recreation projects, many involving lakes.

All seven counties submitted plans for county planning and zoning. Beautification projects, such as revamping Greenfield's town square, were proposed. One farmer suggested that an industry be set up to make wood chips from trees cut down in timber-clearing projects.

Industrial development, runway surfacing at airports, and an outdoor classroom for Southwestern Community College were among other proposals.



You don't have to be big to be a winner. Clearfield, Iowa, is a small town with plans for improvement, sparked by the Southern Iowa RC&D Project.

So far, a cattle improvement association has been formed; a tourism brochure has been printed; and a water-treatment plant has been installed at Greenfield. The Iowa Department of Health has helped Clarke County hire a nurse; the Office of Economic Opportunity is helping pay the cost of a "Meal on Wheels" catering service for the aged in Leon; and a nonprofit day-care center has been set up in Union County to care for small children whose mothers earn a low income.

Many of these projects were underway before RC&D, headed by community leaders now serving on RC&D committees. Dale Juergens, a Clearfield banker, is helping to get people together on RC&D projects to avoid duplication of effort.

We feel fortunate in having the services of resource specialists like Herb Kayser, the RC&D project coordinator, and Bob Louden, an SCS soil conservationist. We'll get a forester soon. We wouldn't have these professionals helping us develop our area without an RC&D project.

We think we've done well so far, but we're now ready to step up the pace. We have three project measures to give us a "shot in the arm" if we can get RC&D funds: a silt trap to protect Taylor County's Windmill Lake; a lake near Garden Grove to be used for recreation, flood control, and supplemental town water supply; and a small structure near Prescott to stop the flooding of the town's main street. We're enthusiastic about these projects, and we're looking for ways to get financial help.

People know now that an RC&D project is a source of help on a variety of problems. When a downpour flooded Creston Junior High School and several private properties, it took only a few days for people to ask that a remedy for the flooding be included as an RC&D proposal.

That's the kind of response we've wanted. Now all we have to do is make certain we have the organization and cooperation it takes to follow through. We think we do. ♦

Sweet smell of success in Bitter Root Valley

by Jack Iman

The author: Jack Iman, a lifelong resident of Montana's Bitter Root Valley, is a rancher and president of the Montana State Grange. His 580-acre ranch is 4 miles north of Hamilton. He serves the Bitter Root Valley Resource Conservation and Development Project as chairman of the Ravalli County Program Committee and vice chairman of the Project Program Committee. He has been on the Ravalli Soil Conservation District Board for 20 years.

The area: The Bitter Root Valley Resource Conservation and Development Project takes in the entire watershed of the Bitter Root River in southwestern Montana. The area covers all of Ravalli, Missoula, and Mineral Counties. Total acreage is 3,981,700. More than 50 percent is state and federal land.

Want a vest for your Volkswagen? Need shoes for your mule? Write, call, or come to Bitter Root Valley. We've got 'em.

We also have the technical expertise needed to convert from surface irrigation to sprinkler irrigation. Such a conversion, in some instances, has more than doubled hay and wheat yields, while markedly reducing soil erosion.

The Bitter Root Valley Resource Conservation and Development Project has brought us this expertise, has brought us local industry, and is helping to bring us better communities.

If anyone asks me what I consider the outstanding accomplishment of this RC&D effort, my answer is: a rekindling of community spirit—a renewing of that oldtime feeling that all residents of our valley are interwoven in their economic lives, their resources, and their social and educational values.

Since RC&D entered our lives 6 years ago I think that we talk to each other much more than in the past; we've found that RC&D committees are a neutral ground where we can talk. We are just a group of people trying to find a solution to a problem. When approached this way, the problem seems much simpler.

In the beginning, most people thought that agriculture was getting the most attention, the lion's share of RC&D. The Agriculture Committee was the first established, but about 90 percent of the project proposals we've had in the last 6 months have had little to do with agriculture.

Much of the credit for what we consider to be real progress must go to Clarence Popham, the chairman of our RC&D Program Committee. He holds to two principles: (1) No proposal is preposterous or unfit for action. (2) Any proposal can succeed if those most directly affected are willing to work.

One of our early projects was directed at helping seven landowners in the Home Acres Community Irrigation System change from surface to sprinkler irrigation. Their old method was inefficient; it wasted water, created wet spots in the valleys, and caused erosion in the coarse-textured soils.

Marvin Costello, one of the landowners, recalls that one of his fields had "truck-sized" gullies when he was using surface irrigation. He could plant only 11 acres, and his hay yields were about 1 ton per acre. After $250 worth of bulldozing and conversion to a gravity-powered sprinkler irrigation system, Costello plants 16 acres of hay and harvests 5-ton crops.

Our small-industry committee and its activities have been one of our most successful efforts.

Take Cranston Plastics, for example. In 1967, Ivan Cranston and his wife, Helen, developed a lightweight sportsman's safety kit. They had a product and a production line but needed markets and money. The Bitter Root RC&D was asked for help, and the Cranstons got what they needed.

This 5-year old industry at Stevensville employs five people. It has an established market in Montana, Idaho, and parts of Washington, Utah, and the Dakotas. Annual sales gross about $100,000.

"Vests for Volkswagens" is no joke. There really is such a product. George Stevens of Missoula manufactures removable vests for VW owners who want to protect the painted surface of their cars from damage caused by the pelting of small stones. In the West, highway crews often spread sand rather than salt on icy roads. The sand—really small pebbles—can scratch up VW's, which have large painted areas close to the road.

Forestry is one of our major enterprises, and many folks in the valley are employed by forest industries. Our RC&D project has helped find manufacturers and markets for some of the by-products of the basic industry.

For example, Ted McNinch, near Florence, makes posts and poles

that find their way to highways as guard-rail posts, to the Forest Service who needs sign posts and cabin material, and to lumber dealers. Ted's raw material is lodgepole pine, often the smallest tree in a commercial timber cut and thus an unwanted product. Ted has found a use for a locally grown resource that might otherwise go up in smoke during a slash burn.

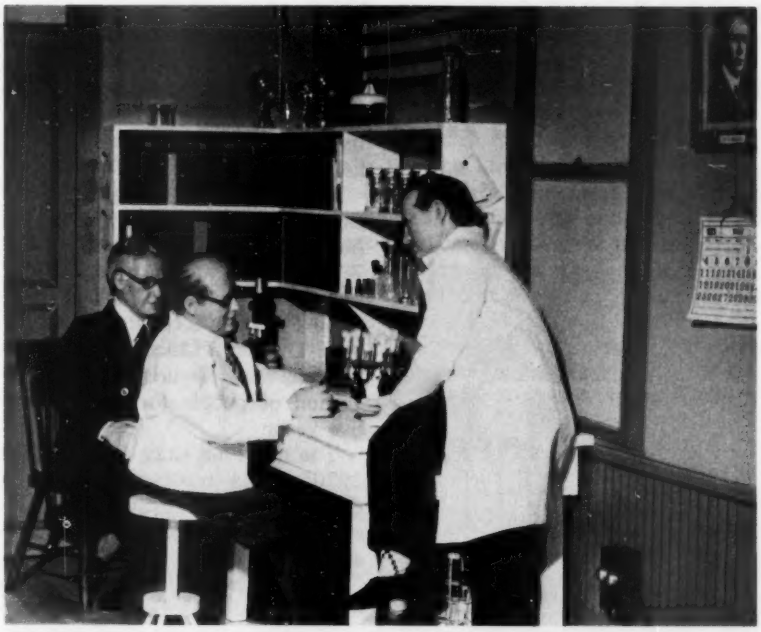
Bill Snedigar's mule shoe operation is another small industry in our area. As far as I know, Bill is the only maker of mule shoes in the United States. His unique business is furnishing a quality shoe that stubborn mules can't throw off on mountain trails. Bill is also a supplier of quality horseshoes, trail tested in mountainous terrain.

Bitter Root was the first valley settled in Montana. Settlement was started by a Jesuit order headed by Pierre-Jean DeSmet. The valley soon flourished. Now more than 130 years later, Mrs. Marion Gebhart, school librarian in Stevensville, and her committee of 12 local amateur and professional historians have captured the color found in early diaries, legends, and photographs in a book, *Montana Genesis.*

To aid the writers in this effort various RC&D committees helped locate oldtimers who had firsthand knowledge of the area's history.

Nestled in the Bitter Root Valley is a U.S. Public Health Service laboratory, one of five in the United States. The laboratory is one of the valley's largest employers. Its primary work is doing research on animal diseases related to humans, such as encephalitis, spotted fever, and rabies.

The early work at the laboratory, however, is the current concern of valley residents. In the early 1900's the Bitter Root Valley was the center of a strange disease that resulted in high fever and nearly 70 percent mortality. To study the disease the state of Montana set up a laboratory in Hamilton. The disease was labeled Rocky Mountain spotted fever. In 1906, Dr. Howard Ricketts established the connection between the disease and ticks. A vaccine was later developed, and since then only one death from the disease among vaccinated people has been reported in Ravalli and Missoula Counties.



This diorama in the Ricketts Memorial Museum in Hamilton, Montana, shows three scientists discussing their work on spotted fever vaccine. The museum has the backing of the Bitter Root Valley RC&D Project.

Dr. William Jellison, a parasitologist who worked at the laboratory from 1929 to 1962, determined that this early work should not be lost to history. He and his wife purchased the old converted schoolhouse where the early spotted fever work was done.

Some fine effort on Dr. Jellison's part and some assistance from the RC&D office have brought recognition from the National Park Service. The old laboratory on Canyon Creek is now designated a national historical place. Dr. Jellison and RC&D members have high hopes for the future of this museum. It is a quality educational project.

Educators like Duane Walker, John Smith, Ron Skelton, and Charles Larson are frank in admitting that our school's first thrust into environmental education came from the RC&D Education Committee. This committee stirred community interest and brought us a Title III grant of $47,000 for environmental education. This funding has resulted in environmental teaching that is heavily centered around firsthand experiences with the environment—outdoors.

Doris Milner, a Bitter Root Valley resident who describes herself as an environmentalist by way of her activities in the League of Women Voters, the Wilderness Association, and several other allied action organizations, sees RC&D as providing a neutral atmosphere where controversies between people of varying interests can be worked out. "It has to do this to serve its purpose," she says.

The future of our RC&D project is bright. Recently we took in an area that nearly doubles our original size. Some folks worry that our efforts will be diluted. I prefer to think that our opportunities have just been doubled. ♦

We're still splitting rails in the Lincoln Hills

by Raymond J. Schulthise

The author: Raymond J. Schulthise is executive vice president of the Citizens National Bank in Tell City, Indiana. He is treasurer of the Lincoln Hills Resource Conservation and Development Project Committee and has served as president.

The area: The Lincoln Hills Resource Conservation and Development Project, the first in the nation, became operational in October 1964. It takes in the 1,005,440 acres of Spencer, Perry, Crawford, and Harrison Counties.

My home has always been here in southern Indiana, which was Abraham Lincoln's home from 1816 to 1830. The area has been good to me, so it's a privilege to do something for the area when it needs help.

I have been associated with the Lincoln Hills Resource Conservation and Development Project for 7 years. I can remember one of our first RC&D meetings back in 1964 when I quoted declining census figures. Our four Lincoln Hills counties had been plagued by an outmigration of people for 70 consecutive years.

The trend has since reversed: the 1970 census reported more than 64,000 people in Crawford, Harrison, Perry, and Spencer Counties—an increase of 4,000 since 1960.

Why is Lincoln Hills today a better place to live? People and programs have brought improvements —programs like our RC&D project and its 438 measures that have changed our way of using land and water, especially forestland.

We began to make progress when our RC&D project sponsored demonstrations in timber resource development for local foresters, woodcutters, and sawmill operators.

One demonstration brought the first modern logging equipment into this heavily wooded area. Today, many local forest owners and mill operators are using rubber-tire skidders. Sawmills have mechanized beyond 1964 dreams. Several individual mills now handle more volume in board feet than 20 mills did before we had an RC&D project.

And sawmills are much neater and safer now, with modern debarkers cleaning the logs. Every bit of excess slab is chipped in a huge woodhog; the chips are sold to three new local industries, mostly for paper products. The wood-chip business, alone, brings about $850,000 to the area every year.

We also have sponsored highly successful sawmill clinics, woodgrading courses, Christmas tree management demonstrations, maple syrup institutes, and, perhaps most important, tree planting and erosion-control projects. We've planted more than 5 million trees and wildlife plants on about 7,000 acres, including 6,500 acres of gullied land.

If it's true—and I think it is—that 20 tons plus of soil per year were lost off this area before RC&D then this new tree acreage certainly is preventing a lot of erosion and stream pollution.

Our RC&D project is bringing us substantial economic gains. Nearly all banks in the area have tripled

in deposits since 1964.

Earlier, I mentioned the new wood-chip business. There are five other new wood-using industries in the area — making paper, flake board, mulch, and furniture.

These companies, coupled with earlier existing wood industries, now employ 50 percent of all our industrially employed people.

Forest resource development and improvement has brought us an extra dividend—more game, especially deer and wild turkey.

And the four-county water-impoundment program, under RC&D leadership, has resulted in numerous small lakes. They are literally everywhere, serving many purposes, including game habitat. The lakes also have multiplied opportunities for fishing and other water recreation a hundredfold.

So we've done a lot with our land and water and trees. But we're not finished yet. We have many attractions for industry: manpower, electric power, and water. But adequate roads are lacking. Our 30-year-old roads were not built for large, heavy trucks. Right here in Tell City we are 100 miles from the nearest interstate highway.

Much can be done if our people —especially our young people—remain in the area and pull together. In the Lincoln Hills RC&D Project area, we are "determined to lift a million acres," as our project slogan indicates, above the depressed conditions that existed here in 1963. And I think we're getting off the ground. We are keeping our commitment alive on the strength of the progress we've made. ♦

(Left) Harvesting logs is much easier now than in Abraham Lincoln's time, especially with a "knuckle-boom" loader.
(Above) These men are getting information about cutting tree length logs into sawlogs for the greatest economic return. Such demonstrations are sponsored by the Lincoln Hills RC&D Project.

We're catching up in central Nevada

by James M. Kielhack

The author: James M. Kielhack is a rancher in Big Smoky Valley, Nevada. He is chairman of the Steering Committee of the Central Nevada Resource Conservation and Development Project, president of the Nevada Association of Soil Conservation Districts, and chairman of the Nevada State Soil Conservation Committee.

The area: The Central Nevada Resource Conservation and Development Project area — 11,897,276 acres—takes in Esmeralda County and parts of Lander, Eureka, Nye, and Churchill Counties.

The Central Nevada Resource Conservation and Development Project is a natural for rural development. Up to now, rural development has been minimal in this area, but we have accomplished enough to know we are on the right track.

Two important factors have given us a push: Establishment of the Central Nevada Resource Development Authority by the State Legislature and a $20,000 grant from the U.S. Department of Housing and Urban Development. That money, with $5,000 from Nevada's Department of Economic Development and $5,000 from the county governments involved, enabled us to complete phase one of our comprehensive plan—an inventory of what we have to work with.

When I say there has been little rural development in this area, I mean just that. Our project area about equals the size of New Hampshire and Vermont together. The similarity stops there.

Instead of a million residents to pay taxes, our population is 5,100. Add together all the privately owned land and you would have an area about half the size of an average county in the United States.

The only incorporated town is Gabbs, population 874. We have no railroad or airline service. Bus service is sketchy. Most telephone customers are on multiparty lines, the kind typical in other rural areas 50 years ago. Roads, for the most part, are narrow and poorly maintained. Sewer systems are unknown.

Ninety-eight percent of the land here is federally owned and administered by the Forest Service and the Bureau of Land Management. Indian reservation land totals about 4,500 acres. State and county owned land comprises roads, townsites, parks, and the like. Our part of the Toiyabe National Forest is in three north - south mountainous strips. Not enough of the timber is merchantable to be commercially important.

In the mid-1960's we formed a development association and applied to the Economic Development Administration for help. We didn't qualify because statistics are available only on a county basis. People working at the Mercury Test Site in Nye County and those in the rich mining areas in northern Lander and Eureka Counties were getting salaries high enough to raise the income average above the prescribed limit.

The RC&D program gave us our chance. With the Austin, Eureka, Tonopah, and Esmeralda Soil Conservation Districts and commissioners from four counties as sponsors, our application for project help went to Washington, D.C., in June 1967.

Our RC&D project was authorized for planning in 1968. In March 1969, our plan of action got approval. The Soil Conservation Service assigned Albert Neu, a man already familiar with the problems we were up against, to work with us as project coordinator.

At about this time, the RC&D Steering Committee agreed that we could work more effectively if we had legal authority. State Senator Emerson Titlow, who heads our Legislative Committee, and our legal counsel, Marshall A. Bouvier, went to work. The result was the Central Nevada Resource Development Authority which gives us power to borrow money, own land, enter into contracts, conduct surveys, and build and operate works of improvement.

The authority asked the Department of Housing and Urban Development to help out with planning funds. That is how we got the $20,000 for phase one, which was completed by an experienced planner, Raymond M. Smith.

The inventory of our resources included 65,000 acres of government land that have abundant rechargeable water at shallow depth suitable for irrigation. Our aim is to get this land, which is controlled by the Bureau of Land Management, released for use as cropland. In crop use—producing the alfalfa, wheat, and barley for which it is

suited—it will make a healthy impact on our economy.

Recreation is also a big opportunity. This generally means water, which is mostly in limited supply. Nonetheless, there are places we can develop. An example is the Kingston Streamsites development on Kingston Creek. A 14-acre lake built by the State Fish and Game Commission is the central attraction.

And Tonkin Reservoir near Eureka can be doubled in capacity and opened to the public.

The urge of Americans to travel, to poke around in interesting places, also is in our favor. We have scores of historic, scenic, and geologic points of interest, and we are taking steps to get them designated as parks, national monuments, and other tourist attractions.

Changes needed in our use of land, conservation practices needed on crop and range land, safeguards needed in all of our development work to prevent erosion and pollution of our water by sediment—all these are in our plans.

Planning is the key to the success we mean to achieve, and we want planning of the highest order—practical, complete, and in the right sequence.

The soil conservation districts, with SCS providing resource information and technical help, are entities through which this kind of planning must proceed. The U.S. Department of Agriculture must give more emphasis to rural planning, in much the same way as HUD works with cities.

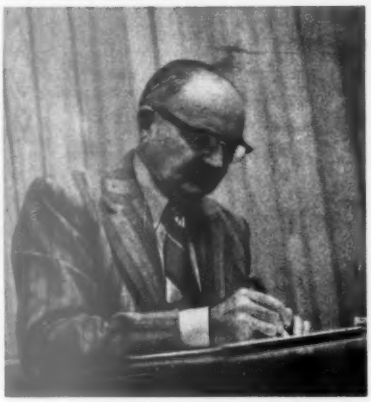
In 10 years or so we'll show you a change you won't believe: 50,000 people, enjoying all of the conveniences and facilities in the most prosperous and enterprising rural communities—plus clean air, spectacular mountains, broad valleys, and, our major asset, open space.

These are our objectives. The momentum we have built up—with soil conservation districts, county governments, and local leaders all teaming up with state and federal forces—will see us through. ♦

(Top) Austin is typical of the small communities that dot the landscape in the Central Nevada RC&D Project area. (Above) A reliable supply of irrigation water in central Nevada has helped boost the economy. The Toiyabe mountain range is in the background.

RC&D spurs log cabin industry

by Maurice Postley



The author: Maurice Postley is a retired New York newspaperman who has lived in the foothills of the Catskills since 1963. He is an associate director of the Delaware County Soil and Water Conservation District and is in charge of public relations for the South Central New York Resource Conservation and Development Project.

The area: The South Central New York Resource Conservation and Development Project area includes seven counties, but an eighth, Tompkins County, has formally requested inclusion. The original seven —Broome, Chenango, Cortland, Delaware, Madison, Otsego, and Tioga—cover 3.7 million acres. Tompkins County will add 314,000 acres. The area is agricultural in nature; dairy farms predominate. Accessibility from New York City, Long Island, Westchester County, and New Jersey suburbs has increased the popularity of the region for second homes.

A log cabin industry that did not exist a year or so ago is burgeoning in the South Central New York Resource Conservation and Development Project area, and any hardheaded realist would have to agree that developments in recent months offer promise of an industrial complex that may be ideal for the region. And why not? The timber grows locally. The entrepreneurs and workers are local residents. And most of the log cabins are being built right in the seven-county RC&D area.

Urban-oriented people seeking second homes or recreation homes in the country find the log cabin enticing, because it can meet all modern needs and yet retain rural charm.

The idea for the log cabin project originated with Richard F. Howard, a woodland conservationist employed by the Soil Conservation Service. Philip C. Comings, chairman of the RC&D Steering Committee, and his associates gave encouragement.

Among objectives of SOCENY, Howard's alliterative simplification for the South Central New York RC&D Project are the following: Find uses for underutilized natural resources, such as woodland, scenic attractions, and streams; promote activities that can develop job opportunities for local residents; and establish local industries.

Because of a law adopted in the late 1920's authorizing the state of New York to purchase abandoned farms and plant them to trees, the state owns more than 200,000 acres in the SOCENY RC&D Project area. More than 50,000 acres of this state-owned land is in pine trees of 6 inches or greater diameter. An additional million trees are planted each year on about 1,000 acres of privately owned land.

This then was the resource that existed when Howard presented his log cabin plan to the RC&D Steering Committee. "A log cabin industry," Howard stated, "could bring an additional market for evergreen plantation thinnings."

The plantations require regular thinning, and the only use for trees cut in thinning had been pulpwood, a low-value product with an uncertain market.

Both the RC&D Steering Committee and the New York State Department of Environmental Conservation agreed to participate in the log cabin project.

During the winter of 1969-70, Howard drew how-to plans, indicating to manufacturers how machinery could produce pre-cut parts. The RC&D Steering Committee authorized reproduction of plans and made them available to the public at $2.50 per set. About 125 sets have been purchased—from as far away as the upper Amazon Valley of South America.

Inquiries came from loggers, sawmills, building supply contractors and companies, real estate agents and developers, building contractors, and others, including potential sources of financing.

In Howard's how-to-do-it plans, the logs are squared off on three sides. The rounded side is used for the exterior face. The logs are cut to length and numbered to go together like a child's Lincoln log set. A "bead" of asphalt roofing cement applied with a caulking gun closes the exterior crack between any two logs.

Numerous business activities indicate the potential for the project.

In Guilford, N.Y., for example, R. & L. Log Buildings, established in April 1970 by Ralph and Loren Wildenstein, a father-and-son team of dairy farmers with a small sawmill on their property, have had their own crews erect 26 log cabins thus far. And they have orders on hand to keep them busy during the winter.

A worker puts finishing touches on a hunting lodge built from a "log cabin kit."

Log Line, Inc., at Spencer, is headed by Earl Richards of the RC&D Steering Committee. He studied the idea for almost a year and then resigned as project engineer with IBM to go into the log cabin industry.

Log Line has purchased a 35-acre site for a new plant and aims to build 50 log structures in 1972.

The Farmers Home Administration has approved Log Line Buildings for customary home financing. The firm is closely cooperating with New York State College of Forestry, the New York State Department of Environmental Conservation, and the U.S. Forest Service and is working with Cornell University on a plan to help minority groups build inexpensive log houses.

A glance at costs is pertinent. Materials, including floors, walls, roof and roofing, doors and windows, in short, the shell, cost $5 to $8 per square foot. The cost of erection is extra. A small building can be erected at a cost of about $4,000. To this, of course, must be added the cost of land, water, sewage disposal, furnishings, electrical installation, a fireplace, if desired, and so on. At present, the completed buildings range from about $8,000 to $23,000.

About 50 log buildings are now in the project area. At an average of $10,000 each, their cost comes to half a million dollars. In addition to building costs, annual family expenditures to local retail and service businesses are estimated at $50,000 to $100,000 the first year.

It may not be surprising that we are optimistic about the future of this new industry. Those in the log cabin business in our project area believe they will be able to sell buildings outside the area as time goes on and the production process is refined.

The log cabin has not turned back the clock. It has turned it ahead. ♦

New job skills in the Cherokee Hills

by Daniel D. Draper

The author: Daniel D. Draper is the mayor of Colcord, Oklahoma, and the superintendent of schools. He has held the latter position for 18 years. He is past chairman of the Cherokee Hills Resource Conservation and Development Project Executive Committee and current chairman of the Training and Retraining Subcommittee.

The area: The Cherokee Hills Resource Conservation and Development Project area includes Adair, Cherokee, Delaware, Mayes, Ottawa, and Sequoyah Counties in northeast Oklahoma. This area of forested hills, small livestock farms, sparkling streams, and scenic lakes is the terminal point of the historical Trail of Tears, a journey made by the Cherokee Indians in the mid-1800's.

The Cherokee Hills Resource Conservation and Development Project is giving people in our area a chance to upgrade their lives through job training.

In common with much of rural America, low educational levels and unemployment have plagued our area for decades. One problem seemed to fuel the other in a circle of events that led us nowhere.

Added to this was the migration of young people who had completed high school and received advanced academic or technical training. Our most valuable resource, trained youth, was being siphoned off to metropolitan centers. Young people had no real alternatives because opportunities were scarce.

In 1965, the Cherokee Hills RC&D Project was formed through the impetus of conservation districts in Adair, Cherokee, and Delaware Counties. Since that time, the project has been expanded to include Sequoyah, Mayes, and Ottawa Counties.

The project sponsors recognized early that attention to education and unemployment needs was essential. It was useless to expect citizen action on a broad front until people's basic needs for good jobs and self-esteem were met.

Members of the RC&D Subcommittee on Training and Retraining knew the problems all too well. The task was to find solutions.

The Soil Conservation Service and state education and employment agencies alerted us to the vehicle needed to meet training goals: the Manpower Development and Training Act, passed by Congress in 1962. The RC&D concept—local people working together on an area basis to reach specific objectives—was an ideal forum to implement this act.

Funds required to carry out the training program were determined, and a pilot proposal was submitted to Washington. Phase I of the Cherokee Hills RC&D Project proposal was approved early in 1968; $300,000 in federal funds were made available. It was the first time that Manpower Development and Training Act funds were obtained through an RC&D project.

One hundred and fifty-five men and women were enrolled in the initial seven training courses: bulldozer operation, farm machinery maintenance, welding, machine tool operation, stenography, small motor repair, and tractor and implement repair. Class size was limited so that each student could receive individual attention. Classes were held in public schools, colleges, and community centers.

Oklahoma's State Employment Service and Department of Vocational-Technical Education do the legwork in setting up the training courses.

The State Employment Service screens applicants to determine which have the most need for training. Applicants must be unemployed or underemployed and at least 18 years old. Those selected are paid $38 a week, plus mileage, and $5 for each dependent up to a maximum of six.

According to the Employment Service, 75 percent of the graduates find employment. Many make two or three times their normal income as a result of skills acquired through training.

The Department of Vocational-Technical Education hires competent instructors for these training courses and develops course outlines. Technical courses utilize the learn-by-doing principle along with classroom instruction. Counselors keep students advised of their progress.

The Cherokee Indian Tribe, the Bureau of Indian Affairs, Northeastern State College at Tahlequah, Northeastern A&M College at Miami, several local school systems, and other organizations have contributed to the success of the training program by providing supervisors, local sponsorship, training sites, classrooms, equipment, and facilities.

Many young men and women in

the area say the training program pays off in a better way of life.

Robert Hogner, a Cherokee Indian from Tahlequah, is a good example. Married and the father of four children, Hogner is a skilled welder.

"Before I took the welding course," Hogner said, "I was out of work much of the time, and when I was working it was usually as a dishwasher. I make more than twice as much money with this job than I ever did before."

Mrs. Margaret Collins, secretary at the Cherokee County Concerted Services office, is a graduate of the 30-week stenography course. Typical of many young married women, she faced the challenge of financing her husband's way through college with no technical skills or vocational training.

"I didn't have the time or the money to attend business college," Mrs. Collins said. "It was either go to work at a low-paying job or get some short-term training I could afford."

The Cherokee Hills training program is 3 years old now. About 700 people have received vocational training; 280 of these have been Cherokee Indians, and half of the male participants have been military veterans.

Because of this success, the Cherokee Hills Skill Center in Tahlequah was established to serve vocational training needs in the six-county project area.

Operated by the State Department of Vocational-Technical Education, the center in full operation will have a capacity of 90 pupils.

Training will be given in health occupations, clerical skills, mechanics, welding, water and sewage treatment, and heavy equipment operation.

The Oklahoma Employment Service will provide training allowances for the students and help in placing them. The center will be housed in a 24,000 square-foot building owned by the Cherokee Indian Tribe and leased to the center.

The Cherokee Hills RC&D Project has sponsored a training program for 3 years. These students are learning bulldozer operation and maintenance.

The Cherokee Hills RC&D Project's training effort has been demanding, but results have been rewarding.

The main reason for the high degree of success, I believe, has been twofold: conscientious effort of local citizens cooperating together for a common cause and responsiveness of government agency people and legislative leaders.

The 1970 census data give a subtle indication of things to come in the Cherokee Hills. All six counties in the project area showed increased population over the 1960 census, contrary to what's happening to most of rural Oklahoma and rural America.

Our RC&D project has the splendid image, and rightly so, of an action-oriented program that gets things done. It has been the only program I have been associated with above the local level that has been able to reach into the grass roots of our communities and come up with locally initiated, self-help measures. It's a program of the people, there's no doubt about it in my mind. ♦

Staying dry in Berkeley County

by Clyde D. Umphlett

The author: Clyde D. Umphlett is county supervisor of Berkeley County, South Carolina. He is a commissioner of the Berkeley Soil and Water Conservation District and of the Lowcountry Resource Conservation and Development Project and chairman of the county RC&D Committee.

The area: The Lowcountry Resource Conservation and Development Project area covers seven counties in the extreme southern corner of South Carolina. The major resource problem is lack of water management.

Our whole county is low and wet, so I know the need for drainage.

In 1966, our area was growing fast. If in no other way, I could tell by the number of calls from people complaining about something, especially after heavy rains—their lots were under water, septic tank effluent was bubbling out of the ground, they couldn't get across a flooded road.

All I could do was put them off. We had little money, practically no equipment, and no engineers. But we had to do something; we had to find help.

At about this time, we heard about resource conservation and development projects and started action to get one going in Berkeley County and the six surrounding counties.

I visited every community in Berkeley County, telling people about the help that we could get through RC&D. I have never seen people so enthusiastic. Twenty-three communities put in requests for drainage work, and the county applied for a watershed project covering about one-fourth of the land area.

After St. Stephens, our first project, was completed, we thought we were on our way. But additional problems were always popping up. A group of about 20 landowners, known as the Ben Nelson Group, needed help but had no organization to sign a maintenance agreement with the Soil Conservation Service.

They explained their problems to county officials, and the county agreed to enter maintenance agreements for all RC&D, U.S. Army Corps of Engineers, and Public Law 566 work.

Another group, also needing a flood-prevention and drainage program, could not raise 25 percent of construction costs as required by the RC&D project. Again, I went to the county delegation and explained that for every dollar the county spent on this program it would get $4 worth of work. The delegation knew how badly this work was needed and provided the necessary money. Since then all community flood-prevention and drainage projects can receive financial assistance from the county.

The 1970 census reports that Berkeley County is the fastest growing county in South Carolina. This is not hard to believe because now we are getting more calls for help than ever before—not only from individuals, but real estate developers too.

Many people buy low, wet land because of the cheap price. After a heavy rain they realize they were gypped and call me to complain. Lots of people have bought houses when the weather was dry, only to find later that they live in a pond.

The county governing body is doing all it can. In addition to RC&D work, it is clearing the way for drainage under the Rural Environmental Assistance Program and for farm drainage programs surveyed and designed by the Soil Conservation Service. I hope to employ a county engineer soon to get better roads and more drainage.

We live in a low area, and our perennial problem is wet land. We must build and maintain open canals to have a decent place to live. ♦

Prescription for progress

by L. R. Dudney, M.D.

The author: Dr. L. R. Dudney is a retired physician living in Gainesboro, Tennessee. He was a principal organizer of the Hull-York Lakeland Resource Conservation and Development Project and served as its first president. He is still a member of the RC&D Board of Directors.

The area: The Hull-York Lakeland Resource Conservation and Development Project serves an area almost entirely in the Upper Cumberland River watershed of north central Tennessee. The area, about 2,578,-500 acres, embraces Clay, Cumberland, DeKalb, Fentress, Jackson, Macon, Overton, Pickett, Putnam, Smith, and White Counties—all in Appalachia.

I am not a man who likes crowds. I don't like brick. I don't like concrete. I don't like pavement, glass, and chrome. I'm a man who likes to get outdoors and see things as they really are.

Jackson County, where I live, is considered one of the poorest in the nation. I think that it is one of the richest. It is rich in natural things—the beauty of the countryside, the peacefulness of life.

When we were just getting our RC&D project going, we were confronted with problems that were too big for any one person or any one county. In effect, we had to erase county lines and work together as an area. At first, people were a bit unconcerned, but they soon learned what working together can accomplish.

It seems to me that the RC&D area approach to motivating people is the best approach. After all, a group of mountain people is a group of mountain people, and a group of people who live in the desert is a group of people who live in the desert. They live in different environments, face different problems, and need different types of RC&D projects.

The greater part of our project area is in mismanaged forest. What many people do is just plain forest raping. They go in and take what they want, totally disregarding anything else. Now, forest improvement is the goal of the Appalachian Forestry Association, a Hull-York RC&D Project spinoff. Not we, but our children, will reap the benefits of forest improvement. Frankly, such a long-range project would have fallen flat on its face if it had been the first one started in the RC&D project, but people already had experienced success with many short-range projects.

The Upper Cumberland Recreation and Tourist Association also came about because of RC&D. Ward Draper, a local man who evidently can see into the future, gave a lot of time and hard work to this group. With a lot of good farmland being taken by a new lake, Draper could see that our basic industry, agriculture, would have to be replaced. Our beautiful lakes and mountains are ideal for the tourist. And so grain, livestock, and tobacco are out; tourism is in. Our program of land-use management—I don't like to use the word "zoning"—controls the haphazard growth of recreation facilities and vacation homes.

One of our major problems, though, is the disposal of nonbiodegradable solid wastes. It's alarming and almost sickening to think of the nondegradable material that is cast aside, creating eyesores.

If we were to gather up all our solid waste, where could we put it? Someone will say, "throw it away," but there is no "away" anymore. We have no place to put waste material, and that's not only here; that's all over the nation. We must begin to recycle solid waste.

If our RC&D project were disbanded today we would not return to old ways because we have learned to seek help and to communicate and work together.

Often I'm consulted on local problems. If I don't know the solution, I say, "Listen, I think I know where we can go for help." Before the RC&D project, many people did not know how to use our county extension agent, our Soil Conservation Service people, or our fish and game officer. Today they do. The eight libraries that have been completed in the RC&D project area are extensively used by the people.

The main achievement of the RC&D leaders here boils down to one thing: motivating and teaching the people to take what they have and do for themselves what they should have been doing all along. ♦

Review

Books

Principles of Turfgrass Culture. By John H. Madison. *1971. Von Nostrand Reinhold Company, New York. 405 pp. plus index, illus. $19.95.*

This book is one of the most comprehensive references on turfgrass culture that has come to my attention. It is a single source of information, containing much of the current material now available on turfgrass science.

The author covers the anatomy and morphology of the turfgrass plant; taxonomy, cytology, genetics, and physiology; turfgrass climate and microclimate; soils; a brief introduction to soil chemistry and plant nutrition; fertilizers; soil, plant, and water factors in irrigation; irrigation design; drainage and salinity. An instructive feature is the inclusion of sections called practicums which give a "practical review" of most of the major topics in the book.

The only topic I missed in this volume was a dissertation on turf diseases and insects.

There are many illustrations, drawings, tables, charts, and graphs to complement the narrative. These help to give a clearer understanding of the subject matter. Each chapter ends with a long list of references. A glossary, author index, and subject index are additional aids to the reader.

This reference fills a need in the understanding of turfgrass culture. It can be useful to all turfgrass specialists from the researcher to the turf manager.—Joseph W. Turelle, *chief agronomist, Plant Sciences Division, SCS, Washington, D.C.*

New publications

Report on 2,4,5-T. *1971. A Report of the Panel on Herbicides of the President's Science Advisory Committee, Executive Office of the President. 68 pp., illus. $0.40.* Examines in detail the scientific considerations leading to policy judgments about the herbicide, 2,4,5-T. The panel found evidence of measurable benefits from the use of 2,4,5-T, but there was simply very little information that could be used to assess risk. In studies supported by the National Cancer Institute, 2,4,5-T was shown to be teratogenic in both rats and mice; there was no evidence that it was carcinogenic. A review of the environmental effects of 2,4,5-T on nontarget organisms reveals few harmful consequences of its recommended uses. Induced changes in vegetation are followed by alteration in numbers of wild animals. Accelerated erosion of soil may follow the killing of brush with herbicides but mechanical removal causes greater erosion. The panel advised, among its detailed recommendations, that further studies be made and that the importance of the impurities in 2,4,5-T as potential health hazards be ascertained.

The Economics of Clean Air. *1971. Report of the Administrator of the Environmental Protection Agency [202] pp., illus. $1.* Provides estimates of the costs of implementing governmental —federal, state, and local—air pollution control programs and applying air pollution control measures to selected stationary sources (particulate matter, sulfur oxides, carbon monoxide, hydrocarbons, fluorides, and lead) and motor vehicles.

Congress and the Nation's Environment, Environmental Affairs of the 91st Congress. Prepared by the Environmental Policy Division. *1971. Congressional Research Service, Library of Congress. 288 pp. $1.25* An analysis of environmental legislation passed in both sessions of the 91st Congress along with summaries of major reports and highlights of significant events associated with the congressional action. Environmental goals are defined, and federal expenditures for environmental purposes are discussed. An appendix contains a compilation of environmental bills enacted in the 91st Congress, arranged by public law number.

Summaries of Solid Waste Intramural Research and Development Projects. By Andrew W. Breidenbach. *1971. U.S. Environmental Protection Agency. 24 pp.* This report summarizes the approaches and progress associated with solid waste management projects being pursued on an intramural basis. Topics discussed include: occurence and significance of pesticides in solid wastes; toxic and hazardous materials in solid wastes; grinder evaluation and development; use of scrap tires as artificial reefs.

Directory of Information Resources in Agriculture and Biology. *1971. USDA National Agricultural Library. 523 pp. $4.50.* Gives the information resources of the federal government and of land-grant colleges and universities in each of the United States and the District of Columbia. There appears at the back of the directory an organizational index, a bibliographic and collections index, and a subject index of prime research areas.

Highway Impacts on Incomes and Employment in the Ozarks, a Study of Statistical Relationships. By John A. Kuehn and Jerry G. West. *1971. USDA Economic Research Service ERS-488. 27 pp.* Results of this study show that highways were not among the most critical factors in the development of the Ozarks region during the 1950's.

Urbanization of Land in the Northeastern United States. By Henry W. Dill, Jr., and Robert C. Otte. *1971. USDA Economic Research Service ERS-485. 11 pp., illus.* About 85 percent of the rural land urbanized in 96 counties in 12 Northeastern States went to residential use during 1950-60. The remaining 15 percent was used for industrial, commercial, institutional, and recreational purposes, and for airports. Land

in residential use averaged more than 0.5 acre per dwelling. About 50 percent of the land urbanized was cropland. Land going to urban use was largely the better farmland—about 80 percent was in land-use capability classes I to III. For the entire study area, about 0.22 acre of land was converted to urban use for each person added to the population.

Insects and Diseases of Vegetables in the Home Garden. By L. B. Reed and Raymon E. Webb. *1971. USDA Home and Garden Bull. 46. 50 pp., illus. $0.40.* Tells how to recognize the more common insects and diseases that attack vegetables in continental United States and how to prevent the damage they cause.

Help for Environmental Programs. *1971. USDA PA-979. [12] pp.* Lists publications, publishers, and organizations that can help teachers and group leaders with their environmental-conservation education programs.

Commercial Fertilizers, Consumption of Commercial Fertilizers, Primary Plant Nutrients and Micronutrients. *1971. USDA Statistical Bull. 472. 85 pp., illus. $0.75.* Updating and superseding Statistical Bulletin 375, published June 1966, this report presents comprehensive statistics on United States fertilizer consumption from 1850 through 1969.

Direct-Seeding Pines in the South. By Harold J. Derr and William F. Mann, Jr. *1971. USDA Agr. Hbk. 391. 68 pp., illus. $0.65.* Direct seeding of southern pines is a versatile reforestation technique that is being widely accepted by land managers. This handbook discusses site and seedbed preparation, describes direct-seeding techniques, and tells how to protect seed and seedlings from birds, small mammals, large animals, livestock, insects, disease, and weather.

The Look of Our Land, an Airphoto Atlas of the Rural United States: the Mountains and Deserts. Compiled by Simon Baker and Henry W. Dill, Jr. *1971. USDA Agr. Hbk. 409. 68 pp., illus. $1.* Airphotos show characteristics and land use in 32 resource areas in two regions comprising all or part of 11 Western States. Accompanying the photos of each area is a brief description of land use, climate, soils, and topography in that area.

Open-Country Poverty in a Relatively Affluent Area—the East North Central States. By Jeannette Fitz-Williams. *1971. USDA Economic Research Service Agr. Econ. Rpt. 208. 55 pp.* Findings of a survey of households in the open country of Ohio, Indiana, Illinois, Michigan, and Wisconsin.

Reproduction of Upland Hardwood Forests in the Central States. By Ivan L. Sander and F. Bryan Clark. *1971. USDA Agr. Hbk. 405. 25 pp., illus. $0.40.* Summarizes data from studies of central hardwood reproduction after harvest cuttings ranging from single-tree selection cutting to complete clearcutting.

Growing Crimson Clover. *Rev. 1971. USDA Leaflet 482. 10 pp., illus.* Outlines where and how to grow crimson clover, the most important winter annual legume for the South.

Soil surveys

Douglas County, Illinois. By D. C. Hallbick and J. B. Fehrenbacher. *1971. 81 pp., illus.; maps 4 inches to the mile (1:15,840).*

Burlington County, New Jersey. By Marco L. Markley. *1971. 120 pp., illus.; maps 4 inches to the mile (1:15,840).*

Milwaukee and Waukesha Counties, Wisconsin. By J. A. Steingraeber and Charles A. Reynolds. *1971. 177 pp., illus.; maps 4 inches to the mile (1:15,840).*

Benton County Area, Washington. By Jack J. Rasmussen. *1971. 72 pp., illus.; maps 3.17 inches to the mile (1:20,000).*

Homer-Ninilchik Area, Alaska. By Robert B. Hinton. *1971. 48 pp., illus.; maps 2 inches to the mile (1:31,680).*

Stevens County, Minnesota. By Royce R. Lewis, Donald E. DeMartelaere, and Ernest L. Miller. *1971. 88 pp., illus.; maps 4 inches to the mile (1:15,840).*

Macomb County, Michigan. By Richard L. Larson. *1971. 110 pp., illus.; maps 3.17 inches to the mile (1:20,000).*

Alcorn County, Mississippi. By Karl H. Miller. *1971. 54 pp., illus.; maps 3.17 inches to the mile (1:20,000).*

Addison County, Vermont. By John E. Griggs. *1971. 119 pp., illus.; maps 4 inches to the mile (1:15,840).*

Meetings

November

8-16 National Grange, Charleston, W.Va.
A topic: Farm Bargaining Power

25-27 National Council for Geographic Education, Atlanta, Ga.

29-Dec. 3 Exposition of Chemical Industries, New York, N.Y.

29-Dec. 4 Western Forestry and Conservation Association, Portland, Oreg.

29-Dec. 5 National League of Cities, Honolulu, Hawaii

December

1-3 National Association of Manufacturers, New York, N.Y.

5-9 American Farm Bureau Federation, Chicago, Ill.

6-7 National Drainage Symposium, American Society of Agricultural Engineers, Chicago, Ill.

6-10 American Association of State Highway Officials, Miami Beach, Fla.

7-9 Symposium on Air Pollution, Las Cruces, N. Mex.

26-31 American Nature Study Society, Philadelphia, Pa.

26-31 American Association for the Advancement of Science, Philadelphia, Pa.

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From the Administrator:

RC&D's are home-grown products

Resource conservation and development projects are not stamped "made in Washington." They are tailored to fit regional needs and to improve the local economic, physical, and social environment. Their local character is part of their strength.

The RC&D idea of areawide pooling of resources and talents, local leadership and decision making, and "starter" funds from the federal government is 7 years old now. The program has grown to encompass 98 projects authorized for planning. These include 624 counties—more than one-fifth of the counties in the country—and more than 372 million acres.

Twenty of the 98 projects recently were approved by the Secretary of Agriculture, in line with the direction of Congressional committees. This approval, the most in any single year, reflects the growing regard for the program by the Administration and the Congress.

RC&D project leaders share with conservation district leaders a concern about soil erosion, sediment, and water runoff on agricultural land. But they also include many social and economic factors in planning the development of a project area. For example, in the Eastern Connecticut RC&D Project area, project leaders and USDA and state agency people have formed an "environmental impact team" to guide local builders and developers. The team is made up of specialists like soil scientists, engineers, and landscape architects.

If there is great diversity of project interests, there is also great unity of purpose on the part of local leaders. This is demonstrated in the firsthand accounts by local RC&D leaders appearing in the November and December 1971 issues of SOIL CONSERVATION.

Whether it is developing forest resources in Indiana or recreation facilities in Arkansas or providing job training in Oklahoma, RC&D projects carry an open-end commitment to "make it work." Their focus is on current needs and priorities.

The spirit that has characterized RC&D's all over the country perhaps is best summarized by a slogan that appears on the masthead of each newsletter published by the Mountain-Dominion RC&D, Princeton, W. Va. It reads: "There is no limit to what can be accomplished if it doesn't matter who gets the credit."

Kenneth E. Grant